Mediterranean and the North Sea, upper Germany not excepted. This fact incontestably proves that these birds cross this distance in one uninterrupted flight, and during one short spring night, viz, in 9 to 10 hours, which gives a rate of locomotion of 40 geographical miles per hour. Wonderful, incomprehensible, I admit, but still remaining a fact. The slow clumsy Royston Crow (*Corvus cornix*) crosses from here due west* over to England, at a rate of 27 geographical miles an hour, and results of 25 miles have been furnished by the semi-domesticated Carrier-pigeon. The distance from the north of Africa to Heligoland is equivalent to that from Newfoundland to Iceland, and therefore no objection whatever can be raised against your birds crossing over to us direct.

All this with plenty of evidence, and a great many points besides, is ready in manuscript sufficient to cover from fifty to sixty pages octavo print, and by the end of May I shall be ready for the press altogether.

I greatly count on your lenience, my dear sir, whilst allowing my pen to run on at such an unpardonable length, but perceiving from your contribution that you, like myself, have studied the grand theme of the migration in nature, which is quite a different matter from all learned treatises thereon worked out by the lamp of the studio, my hobby felt so comfortable in your genial company that it bolted off with this unresisting tide.

Begging once more to pardon my having ventured on your time and patience at such unpardonable length, in more or less objectionable English thereto,

I remain, dear sir, yours, very truly,

H. GÄTKE.

DESCRIPTION OF ALEPOCEPHALUS BAIRDII, A NEW SPECIES OF FISH FROM THE DEEP-SEA FAUNA OF THE WESTERN ATLANTIC.

By G. BROWN GOODE and TARLETON H. BEAN.

The National Museum has recently received from Mr. Christian Johnson, of the schooner William Thompson of Gloucester, a single specimen of an undescribed species of *Alepocephalus* taken on the Grand Banks, at a depth of 209 fathoms. The only other known representative of this genus is the *Alepocephalus rostratus* Risso, a member of the

* During the fall this line of migration, so far as it comes under observation here, day or night, is from due east to west, sometimes perhaps with the declination of a point to the south.

Mediterranean fauna. The species is dedicated to the distinguished Secretary of the Smithsonian Institution.

DIAGNOSIS.—Body comparatively elongate, somewhat compressed, its greatest height, at a point midway between pectorals and ventral insertions, contained $5\frac{1}{3}$ times in its length to the origin of the middle caudal rays, its greatest width equal to one-tenth of total length, the least height of tail contained 11 times in length of body.

Scales large, thin, oblong, triangular at the free end, those at the base of the anal fin having the free end more produced than the others. Sixty-five scales in the lateral line, seven rows between it and the origin of the dorsal, eleven between that of the anal and the lateral line. Scales extend for a short distance upon the bases of the dorsal and anal fins.

Head moderately compressed, snout subconical, the lower jaw included within the upper when the mouth is closed. The length of the head is contained $4\frac{1}{3}$ times in length of body, slightly exceeding twice the length of the lower jaw. Width of the head equal to the length of the operculum and very slightly less than that of the upper jaw. Width of interorbital area half of the least height of tail. Length of snout half that of the mandible, which is one-ninth of the total length. Diameter of orbit equal to length of snout.

Dorsal inserted directly above the vent, slightly in advance of the anal and at a distance from the snout nearly equal to two-thirds of the total length of the body.

Length of longest ray of dorsal one-half that of the postorbital portion of the head. The distance of the anal from the snout is almost three times the length of the head, its first ray being about under the fourth ray of the dorsal. Its length of base is greater than that of the dorsal by one-fifth of the length of the latter; its longest ray slightly exceeds the longest of the dorsal.

Middle caudal rays equal in length to longest ray of anal, the external rays somewhat more than twice as long.

Distance of pectoral from snout three times as great as the least height of the tail; its length one-tenth of total length and equal to width of body, reaching to ninth row of scales.

Distance of ventral from snout equal to twice the length of the head, its length slightly greater than that of middle caudal rays.

Radial formula: B. VI. D. 22. A. 25. C. 19. P. 12. V. 1, 9. Cæc. Pyl. 15.

Teeth on the intermaxillaries, mandible, and palatines.

Color.—Uniform indigo-blue, this color extending to the inside of the mouth and the gill-membranes.

Table of Measurements.

Current number of specimen	22,468.	
	Millimetres.	100ths of length.
Length to origin of middle caudal rays	610	.....
Body:		
Greatest height	.....	19
Greatest width	.....	10
Height at ventrals	.....	18½
Least height of tail	.....	9
Head:		
Greatest length	.....	23½
Greatest width	.....	8⅔
Width of interorbital area	.....	4½
Length of snout	.....	5½
Length of operculum	.....	8⅓
Length of upper jaw	.....	8¾
Length of mandible	.....	11
Distance from snout to orbit	.....	5¼
Diameter of eye	.....	5½
Dorsal (spinous):		
Distance from snout	.....	65
Length of base	.....	15½
Length of longest ray	.....	6
Anal:		
Distance from snout	.....	68½
Length of base	.....	18½
Length of longest ray	.....	6½
Caudal:		
Length of middle rays	.....	6½
Length of external rays	.....	14
Pectoral:		
Distance from snout	.....	27
Length	.....	10
Ventral:		
Distance from snout	.....	48
Length	.....	6⅔
Branchiostegals	VI	.....
Dorsal	22	.....
Anal	25	.....
Caudal	19	.....
Pectoral	12	.....
Ventral	I, 9	.....
Number of scales in lateral line	65	.....
Number of transverse rows above lateral line	7	.....
Number of transverse rows below lateral line from origin of ventral	11	.....
Number of cæcal appendages	15	.....
Vent:		
Distance from snout	.....	65

WASHINGTON, *April* 25, 1879.

ON THE SPECIES OF ASTROSCOPUS OF THE EASTERN UNITED STATES.

By TARLETON H. BEAN.

The family *Uranoscopidæ* of Gill has two representatives on the east coast of the United States, *Astroscopus y-græcum* (C. & V.) Gill, and *A. anoplus* (C. & V.) Brevoort. The former was described from the Caribbean Sea, and is now for the first time recorded in our waters. *A. anoplus* was founded upon young individuals sent by Professor LeConte, and the immaturity of the specimens has led to considerable confusion in the diagnoses of genera. Cuvier and Valenciennes supposed the species to be scaleless. Drs. Gill and Günther both employed this as one of the characters separating it from *Uranoscopus*, the latter in 1860* assigning the *U. anoplos* of Cuvier and Valenciennes to his new genus,

* Cat. Fish. Brit. Mus. ii, 1860, p. 229.